

Notice of Allowability

Application No.

09/808,843

Examiner

Tianjie Chen

Applicant(s)

CRANE ET AL.

Art Unit

2652

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 09/01/2004.
2. ☒ The allowed claim(s) is/are 1-19 and 21-23.
3. ☒ The drawings filed on 15 March 2001 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

REASONS FOR ALLOWANCE

1. The following is an examiner's statement of reasons for allowance:

- With regard to claim 1, as the closest reference, Soeno et al (US 6,246,552) shows a microactuator having a stator and a rotor which holds the slider and is movable with respect to the stator; **but fails to show** the means disclosed in specification of this application for limiting deflection of the rotor out of a plane defined by the microactuator frame; wherein means is referred to the structure of a microactuator shown in Figs. 3-5 and described in specification, pp. 4-6 invoking 35 U.S.C. 112, sixth paragraph.
- Applicant assumes that the above mentioned means would prevent the stator from significantly shifting vertically out of the horizontal plane of microactuator and minimize the amount of vertical deflection (p. 6, lines 20-22 in Specification).
- With regard to claim 7, as the closest reference, Soeno et al (US 6,246,552) shows a microactuator having a rotor attached to a slider, a stator, and beam structure operatively connecting the rotor and stator, the beam structure including a first beam pair aligned with a width of the rotor and a second beam pair aligned with a length and the width of the rotor; **but fails to show** the beam structure and the slider being aligned in a plane defined by the microactuator.
- With regard to claim 21, as the closest reference, Soeno et al (US 6,246,552) shows a microactuator, **but fails to show** a distal connector

Art Unit: 2652

connecting the distal end of a magnet bonding pad and a slider bonding pad, wherein the distal connector is located at the rotation center.

- With regard to claim 22, as the closest reference, Soeno et al (US 6,246,552) shows a microactuator, **but fails to show** that the microactuator includes at least one deflection limiter for limiting the deflection in direction of the length of the rotor.
- Applicant assumes that the above mentioned structures would stop further movement of the slider as the slider is pulled away from the stator approximately 50 microns (pp 8-9 in Specification).


Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tianjie Chen whose telephone number is (703) 305-7499. The examiner can normally be reached on 8:00-4:30, Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Nguyen can be reached on (703) 305-9687. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2652

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


TIANJIE CHEN
PRIMARY EXAMINER